

## ABSTRACT OF THE DISCLOSURE

A process for producing a silicon single crystal is by pulling the single crystal from a silicon melt which is contained in a crucible with a diameter of at least 450 mm, above which a heat shield is arranged. The single crystal being pulled has a diameter of at least 200 mm. The silicon melt is exposed to the influence of a traveling magnetic field which exerts a substantially vertically oriented force on the melt in the region of the crucible wall. There is also an apparatus which is suitable for carrying out the process.